ACC.12
61st Annual Scientific Session & Expo
ACC-i2 with TCT innovation in intervention

E1660
JACC March 27, 2012
Volume 59, Issue 13

Prevention

METABOLIC SYNDROME, DIABETES MELLITUS, OR BOTH AND CARDIOVASCULAR RISK IN OUTPATIENTS AT RISK OF OR WITH ATHEROTHROMBOSIS IN THE REACH REGISTRY

ACC Moderated Poster Contributions
McCormick Place South, Hall A
Sunday, March 25, 2012, 9:30 a.m.-10:30 a.m.

Session Title: Prevention: Clinical: State of the Art Research in Metabolic Syndrome, Diabetes, and Glucose Control
Abstract Category: 9. Prevention: Clinical
Presentation Number: 1184-289

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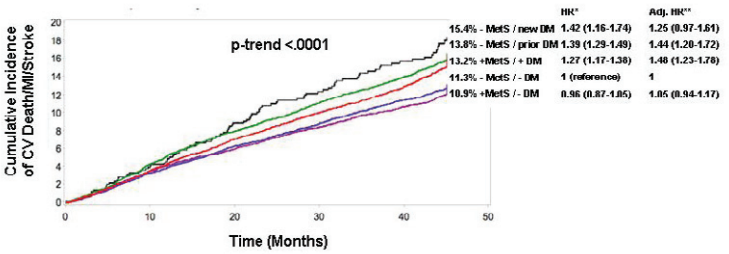
Background: The incidence of metabolic syndrome (MetS), diabetes mellitus (DM) and their coexistence is increasing, but whether MetS represents a synergistic increase in CV risk beyond component risk factors (RF) is controversial.

Methods: We set out to compare 4-yr risk for CV death/MI/stroke in patients (pts) w/ MetS, newly recognized DM, prior DM or coexistent MetS/DM to pts w/o MetS or DM independent of traditional RF, subclinical atherothrombosis or prior ischemic events in the international outpatient REACH Registry (n=45,227 with 4-yr follow-up).

Results: Among the 36,682 eligible REACH pts, 34% were without MetS or DM at baseline (n=12,710), 16% had MetS w/o DM (n=5,877), 1.8% new DM (n=645), 28% prior DM (n=10,187) and 20% had both MetS + DM (n=7,263). Cumulative 4-yr rates of CV death/MI/stroke are shown in the figure. The risk of mortality and CV death were consistent with these observations; pts with new DM had highest risk while pts with MetS had no significant increased risk. After further adjustment for CV RF and baseline statin/aspirin use, the risk of the composite endpoint for pts w/ new DM was attenuated (HR 1.25 [0.97-1.61]) but remained significant in those with prior DM and both MetS/DM. However, new DM pts remained at high risk of mortality (HR 1.76 [1.34-2.31]) and CV death (1.77 [1.25-2.52]) similar to pts with prior DM or MetS/DM.

Conclusion: In REACH, the presence of MetS did not confer higher risk for future CVD in pts with or without DM. Pts w/ newly recognized DM had high risk for future CV events.

Figure. Kaplan-Meier Cumulative Incidence Curves for Cardiovascular Death, MI or Stroke in Participants with Metabolic Syndrome, Diabetes Mellitus, Both or Neither in the REACH Registry



*Adjusted for age and sex. **Adjusted for age, sex, employment, education, ethnic origin, geographic region, history of smoking, obesity, atrial fibrillation, heart failure, vascular disease status (polyvascular disease, single vascular disease, or risk factors only), prior ischemic event (≤ 1 year, > 1 year, or no ischemic event), baseline statin and aspirin use and baseline fasting blood glucose. DM status was categorized as prior DM or glycemic therapy or considered newly recognized if a pt without DM had fasting blood glucose (FBG) ≥126 mg/dL [7mmol/L]. Pts were categorized as having MetS if they met any 3 out of 4 consensus criteria (ethnicity specific obesity thresholds, FBG 100-125 mg/dL [5.6-6.9 mmol/L], TG ≥150 mg/dL [1.7mmol/L] and/or fibrate/niacin Rx, or HTN) in those without DM or met criteria for MetS independent of FBG in DM pts